

ACQUIRING AND USING THREE-DIMENSIONAL INFORMATION IN A DOCUMENT SCANNING SYSTEM

ABSTRACT OF THE DISCLOSURE

Systems and methods for acquiring and using three-dimensional imaging data to
5 improve the process of scanning bound documents are disclosed. The system includes a
camera for capturing an image of documents such as books, and a second camera for
gathering data regarding the first camera's field of view. Signal processing logic
analyzes the data gathered by the second camera and uses it to determine whether the
imaging camera's view was obstructed. If it is determined that the imaging camera's
10 view was obstructed, then remedial action can be taken, such as removing the
obstruction, recapturing the image, and/or flagging the image for further processing. The
second camera may include a laser range finder, a scanning laser range finder, an
ultrasonic range finder, a device that utilizes auto-focus range finding technology, a
binocular camera array, and/or a trinocular camera array.